METHOD AND APPARATUS FOR SEARCHING A FILTERING DATABASE WITH ONE SEARCH OPERATION

ABSTRACT OF THE DISCLOSURE

Multiple searches of a filtering database increase the time for filtering a data

5 packet received by a switch. A switch including a translator and a filtering database for performing a single search is presented. The translator provides a translated identifier for an identifier associated with a data packet received by the switch. The translated identifier includes a group identifier corresponding to a virtual LAN group (FID) and a group member number corresponding to an identified virtual LAN (VID). The filter

10 data base stores a static entry and a dynamic entry. The static entry stores a forwarding decision for the data packet associated with the translated identifier. The dynamic entry stores a forwarding decision for the data packet associated with the group identifier included in the translated identifier and the group member number set to don't care. The translated identifier allows a filtering database to provide the forwarding decision

15 stored in the static entry or the dynamic entry for the identifier from a single search operation.